

## **REMARKS**

Claims 1-24 are pending. Claims 25-33 have been withdrawn without traverse. Claims 1 and 10 have been amended to overcome the examiner's §101 and §102 rejections. Reconsideration of these claims is kindly requested based on the following arguments.

### **REJECTION OF CLAIMS UNDER 35 U.S.C. § 101**

The examiner rejected the claims as directed to non-statutory subject matter. In response, applicant has amended Claims 1 and 10 to clarify that the claimed method is implemented using a computerized analysis platform for which the haplotyping analysis approach reduces the overall quantity of data analyzed to thereby improve computational efficiency. These amendments are supported by the specification, for example, as described in Paragraph 27 and further set forth a practical application of the claimed method that produces a useful, tangible, and concrete result.

Additionally, in the Office Action, Claims 4, 5, 7, 8, and 12-24 were not subject to further rejection and are presumed to contain allowable subject matter having addressed the aforementioned rejection.

### **REJECTION OF CLAIMS 1-3, 6, 9, and 10-11 UNDER 35 U.S.C. § 102**

The Examiner rejected Claims 1-3, 6, 9, and 10-11 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,931,326 to Judsen (the Judsen reference). In view of the following discussion, and the amendments made to the Claims, Applicant respectfully traverses this rejection.

The Judsen reference does not appear to teach the methods for data reduction during haplotyping analysis as claimed in the instant application. Such data reduction methods as claimed by Applicant desirably improve computational efficiency by reducing the number of SNPS which are evaluated while preserving haplotype diversity.

(See Independent Claims 1 & 10 and Specification Paragraphs 28, 41, 89, and elsewhere)

Applicant has carefully reviewed the Judsen reference finding that the methods of construction a haplotype database detailed therein fail to describe haplotyping analysis methods in the manner claimed by applicant. More specifically, the examiner cites Col 8, lines 55-67 of the Judsen reference in relation to creating “subsets” of haplotype information. The subsets disclosed in this context are described as “subsets of the total patient set” and certain functionalities including selecting “patients based on clinical value”, “ethnicity” or “genetic makeup” are applied to the subsets. These subsets appear to be used for purposes of organizing data contained in the haplotype database and do not disclose applicant’s claimed haplotype analysis method for identifying analogous SNPs and selecting from them a representative SNP so as to reduce the amount of data to be analyzed while preserving substantially similar haplotype diversity information. (See Independent Claims 1 & 10 and Specification Paragraphs 29, 38, 48, and elsewhere)

Applicant therefore submits that Claims 1 and 10 are patentably distinguished over the cited reference. Furthermore, Claims 2-9 and 11-24 which depend from Claims 1 and 10 respectively are believed to be patentable for the same reasons articulated above, and because of the additional features recited therein. The rejections to the claims are therefore traversed as the claimed limitations of each independent claim is not taught or disclosed by the cited reference. Consequently, Applicant respectfully requests allowance of the Claims.

## CONCLUSION

In view of the forgoing, the present application is believed to be in condition for allowance, and such allowance is respectfully requested. If further issues remain to be resolved, the Examiner is cordially invited to contact the undersigned such that any remaining issues may be promptly resolved.

Fee Authorization

Should any extension of time and/or fee be necessary for timely submission of this paper, such extension of time is hereby requested, and the Commissioner is hereby authorized to charge **Deposit Account No. 01-2213 (order no. 5150)**. Any deficiency or overpayment should be charged or credited to this deposit account.

Respectfully submitted,

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